July ye 1768

Sir

Agreeable to your request I have shipt y^e Goods
in y^e Brother & 2 Sisters Capt. Nicholas Monieur for Havre
as by his receit for y^e Delidery of y^e same, annexed,
The Globes are in a new Case with lock, key & hinges,
Mrs Hastets things are in a Hamper, but y^e Cod is
apart alone — The Telescope is part of y^e Globes
Case, also a small Mahogony Case Containing a
Dipping Needle of a small price, w^ch is £1.11.6
I got Use of them made in Order to have some
observations made with them at Sea, they might
be made in a much better manner, but as they
are only for trial ones, we may make better
hereafter for those that will go at y^e price — I have
Order'd one to be made in a very curious manner
& to traverse in Rubies — I suppose it will cost me
2 ℔ Guineas — I have only sent you one of these for
to compare you a little, & by it may see some of
the properties, altho' it traverses very badly, & —
requires to feel some small Perceptions, to make it
traverse — I shall make a few of them for some of
our East India Captains, in Order to obtain y^e dip of
y^e needle in y^e d^ff. Latitudes & Longitudes, & I am
apt to think that some usefull discoveries may
be obtain'd therefrom — when you are tired —
with using it, & if you can't sell it for me be
pleased to return it — The method of using it is in
the manner following ——

1st. Draw a magnetical meridian line on y Plane you propose to try y Diping needle upon, as supp. y Plane of a Table or Seat of a Window — wch Line being drawn with Chalk, Pencil or y like, then take y Diping needle out of y Box shut y lid of y box, unscrew y top part of tongs of y Needle (wch part is made with a hole & a thread, in order to suspend it by on board Ship, so that by means of y thread fastened to y N. & South parts of y Graduated meridian, it may be gently moved into any position, & therefore to be in y plane of y magnetical meridian in any place on y Earth

Note, that y Dip, below y horizon, of y North point of y Needle in North Latitudes is y least when y Needle traverses in y plane of y magnetical meridian, wch plane is 20:40 to y West of true North, & consequently that qty to y east of true S. But if y plane of y meridian of Needle be turned so as to cross y magnetical meridian at right angles, the North point of y Needle will stand or rest in y Hadis, & y S. point in y Zenith of its Graduated plane or meridian. The reason is that y north point of y Needle, will always by its natural inclination, approach y nearest towards y Pole of y Earth (magnetical) that it can, therefore y reason or Cause is evident.

2d. If you cannot so conveniently suspend it by y thread, you may unscrew that part, & then invert y frame & screw it upon y screw that is upon y lid of y box; & then make it stand perpendicular by adjusting it by y plumb-wch done, bring y plane of its meridian into y direction of y plane of y magnetical meridian as above directed — The Dip is now here abt 74½ degrees — I am afraid y tender points of its axis will receive some damage by y Carriage, but at pres. I can make it no otherwise — my next I propose to be made with Cylindrical pivots like those of a Watch, wch will bear hardship without being damaged

Dorrings. Westm. July 6. 1768 — R W

Rec'd July 6. 1768 on Board my Ship y Brother with two Setters, 1 Case directed for — a Monsieur Chateau-brun Controller General des Formes des Roy au Havre de Grace — 1 Hamper directed as above & 1 Rod — 1 small Box directed for — a Monsieur Rainpol Lieutenant General de L'amirauté — pour Monsieur de Sourdeval au Havre de Grace — ——— which I promise to deliver to y Order of y said Gentlemen, the danger of y Sea only excepted, as witness my hand — Note the Sloop sailed y 3. Inst. & another is a few days time — 6 July 12th 1768 RW

I have just Dollonds Telescope & my Diping needle into y Case with y Globes — I have also sent you His Majesties Speech, & Catalogue of the Royal Society, The Doctor desires you would mention who of y Soc. you are intimately acquainted with (provided your proposal being made at R.S.) so that he may apply to them to sign for you, as being a Person of great ability by them known & would be a useful member &c — this he proposes if you desire it, to be done ready for your being made at your coming over at Michaelmas —

The Great House at Whitton is let till Lady day next to Dr. Dodd at y Rent £50. out of wch £5. to be allowed for putting y Garden in good repair & condition — The other House I am afraid cannot be let this Summer. we have offered it at £30. but has nothing bid — Mr. Longstaff has last week paid his year Rent, as you desired & Mr Wright & I shall write to Lord Fauconberg at Newborough near Easingwold Yorkshire y 22d June, but I have not been at Mr Wrights these 10 days, therefore whether he has pd or not I don't know — packed Millers Dictionary Lasted. 1768 cost £3.13.6 well bound — packed in a deal box. & Directed as y to order — my respects with my Lord your Lady. & I am glad to hear of y new born Son & his Mama being well — I am Sr y most obliged humble Servt. R Waddington

To

D'ANGLETERRE

Monsieur Sigott

Gentlehomme Anglois a

Rabbatical de Caën

Basse Normandie

WADDINGTON, R
Instrument Maker

A. L. S. dated July 8, 1768
to M. Pigott

DIPPING NEEDLES.—WADDINGTON, R. E. (*Instrument maker*). A.L.S. DESCRIBING IN GREAT DETAIL NEWLY CONSTRUCTED DIPPING NEEDLES. Addressed to "Monsieur Pigott, Gentlehome Anglois a Caen, Basse Normandie." Downings, Westm., July 8, 1768. 4to. 4 pp. £2.10.

Dipping Needles were used since the XVIIth cent. for measuring the angle of dip of a magnetic needle suspended at its centre of gravity. This is an interesting letter of an instrument maker describing in great detail the use of his instrument which he has shipped with other instruments, including a Dollond's Telescope to France.